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THE STRUCTURE OF BIOTIN*

By Dr. VINCENT du VIGNEAUD

PROFESSOR OF BIOCHEMISTRY, CORNELL UNIVERSITY MEDICAL COLLEGE

During the past year my associates and I have been working on the structure of biotin and I should like to take this opportunity of presenting to you the results of this study. In 1940, our group at Cornell University Medical College, in collaboration with Dr. Paul György and Catharine S. Rose at Western Reserve, had demonstrated that biotin, the yeast-growth substance which had been isolated by Kögl, was actually identical with vitamin H.1 2 3 Vitamin H was the name which had been given by György to the factor present in liver, yeast and various foods which was capable of preventing the fatal syndrome resulting from the feeding of large amounts of raw egg white, a syndrome found to occur in all species studied. We were thus able to show that biotin was involved in animal metabolism and through this work biotin became recognized as a member of the vitamin B-complex. The full role in nutrition of this newcomer to the group of vitamins is not fully understood, yet there are indications that it may be extremely important. There are now scores of laboratories working on this compound and within the next year or two much light should be thrown on the significance of this vitamin. With the demonstration of the identity of vitamin H with biotin we undertook a study of the chemical nature of this compound and have recorded from time to time some of our chemical findings. We

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* A lecture delivered before the New York Section of the American Chemical Society, on October 9, 1942.
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